



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

RBT18632-PO
Job Sheet 182578



Part No: RBT18632-PO

Job Qty: 1 ea

Part Name: Landing Gear Keel Bearing Install/Removal Tool



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 8/28/18

Job Tracking No:

Due Date: 10/22/18

Created By: Patrick Lussier

Type: Stock

Description:

Note: DWG RBT18632 Rev. 4 IPP Rev. A 18.08.28 New issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Purchasing	1 pcs		10/22/18	0.00	0.00	Purchasing		OCT 23 2018
110	Packaging	1 pcs		10/22/18	0.00	0.00	Packaging2		OCT 23 2018
120	QC	1 pcs		10/22/18	0.00	0.00	QC6		38
140	QC	1 pcs		10/22/18	0.00	0.00	QC5 1074		9-89
150	Packaging	1 pcs		10/22/18	0.00	0.00	Packaging3		
160	QC21-FG	1 Ea		10/22/18	0.00	0.00	QC21		OCT 26 2018

Part Op 100 - Issue PO to ARROW TECH MACHINE WORKS P/O: 040860 MANUFACTURE RBT18632 AS PER DWG -
Descriptions: Certificate of conformity is required

aug 27. 2018 x 1 R h

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
RBT18632p	landing gear brng install/rmvl tool	1 pcs (1 ea)	100-Purchasing	5120449

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Purchasing	RBT18632p	1	0	0

Part Specifications

Specifications could not be found.



Container No: S120450



Part: RBT18632

Job No: 182578

Serial No/Batch: S120450

Revision: 4

Inspector:

Exp Date:

Instructions:

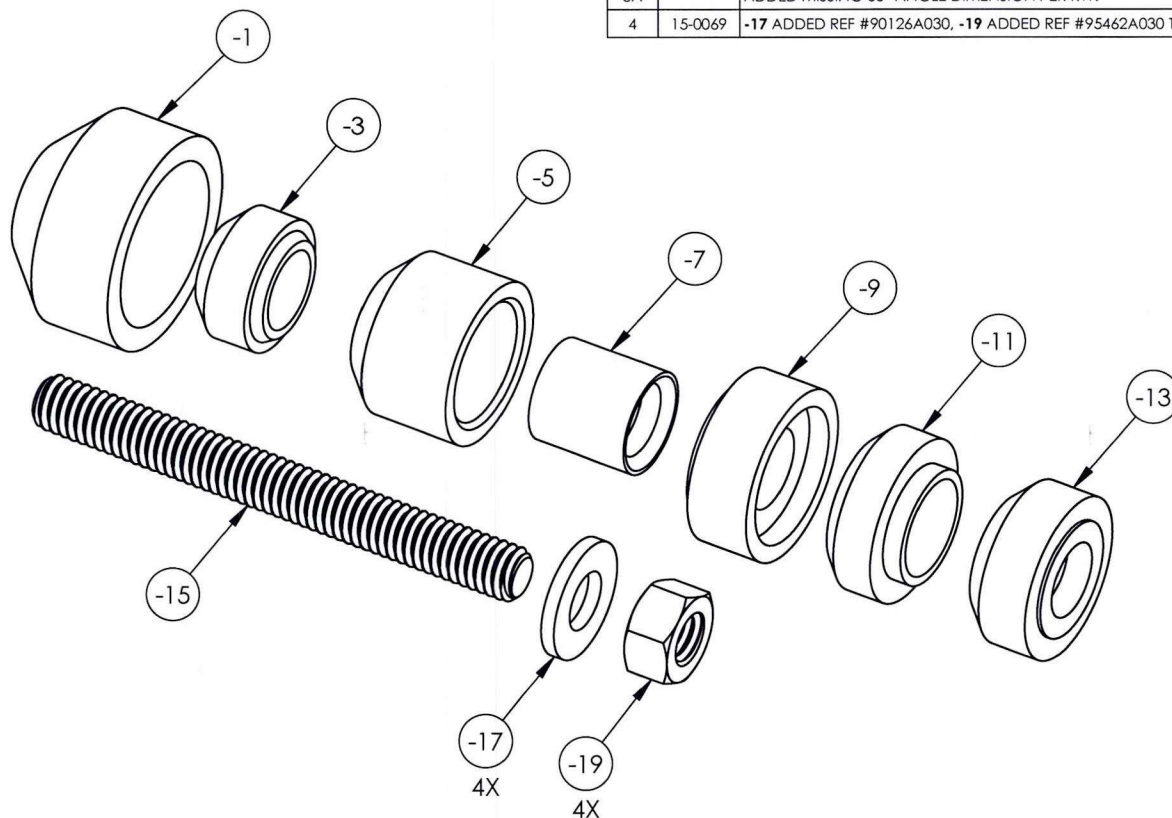
Date: 10/23/18

Dart Aerospace Ltd.
1270 Aberdeen Street
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CANADA
TEL: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Plex 8/28/18 1:03 PM dart.Lussier.Patrick

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		MODIFIED INTRENAL DIMS. FOR PRODUCTION PURPOSES.	10/9/06		
2		CH'D -3 O.D. FROM $\varnothing.780 +.000-.003$, AND -11 FROM $.100 +.003-.000$.	11/21/06		
2A		CH'D TITLEBLOCK & REVISION BLOCK, -1 THRU -13 CH'D STAMP TO ENGRAVE, REMOVED TOOL INSTRUCTIONS FROM SHEET 1, 2, 3, & 4, ADDED SHEET 5 OF 5/CUSTOMER 1 OF 1.	1/20/10	RJC	RW
3		DELETED $\varnothing.515$ DIM. CH'D CHAMFER FROM $.063$ TO $.06$ PER RW.	8/7/10	RJC	
3A		ADDED MISSING 60° ANGLE DIMENSION PER RW.	9/12/11	RJC	RW
4	15-0069	-17 ADDED REF #90126A030, -19 ADDED REF #95462A030 TO BOM.	4/6/2015	RJC	JAG

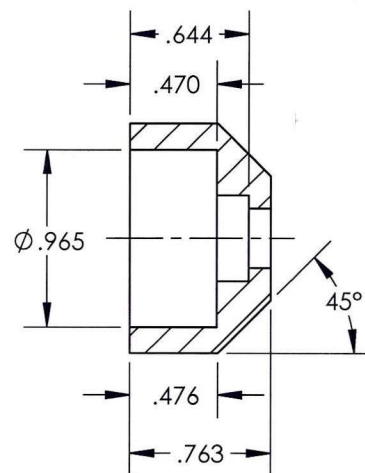
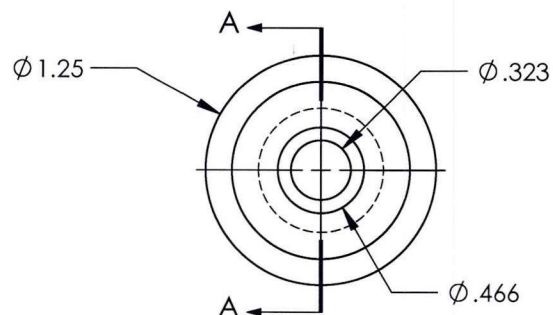
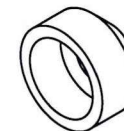
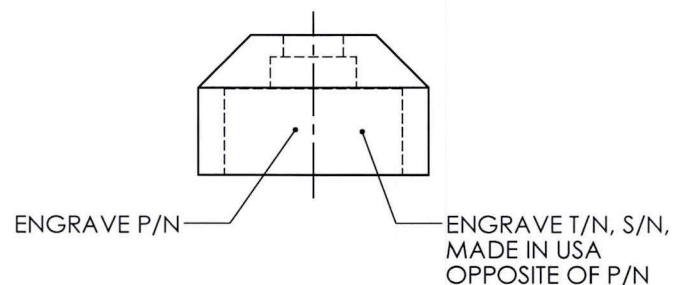


ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
			-1	1	CUP	6061		2
			-3	1	PRESS	6061		3
			-5	1	CUP	6061		4
			-7	1	PRESS	6061		5
			-9	1	SEAT	6061		6
			-11	1	PRESS	6061		7
			-13	1	PRESS	6061		8
		B/O	-15	1	STUD	B7	5/16-18 X 3 (MCMASTER-CARR #98750A045)	1
		B/O	-17	4	WASHER	STEEL	5/16 I.D. (MCMASTER-CARR #90126A030)	1
		B/O	-19	4	HEX NUT	STEEL	5/16-18 (MCMASTER-CARR #95462A030)	1

DART AEROSPACE	
TITLE LANDING GEAR BEARING TOOL	
DWG NO. RBT18632	REV 4
MATL	DRAWN BY: <i>D Weil</i>
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
.XXX $\pm .005$ FRACTIONS $\pm 1/8$	
.XX $\pm .01$ ANGLES $\pm .5^\circ$	
.X $\pm .1$	
1. BREAK ALL SHARP EDGES $.015 \times 45^\circ$	
OR .015R	
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
USED ON MODEL MD500	
SCALE 1:1	DATE 9/28/2006
SHEET 1 OF 9	

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REVISIONS				DATE	INITIAL	APPROVED
REV	ECR	DESCRIPTION				
2A		-1 CH'D STAMP TO ENGRAVE.			1/20/10	RJC
						RW



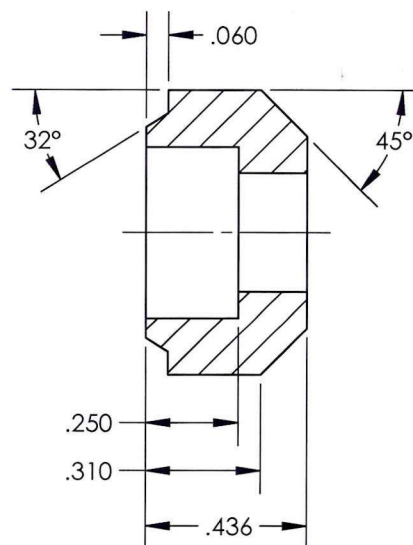
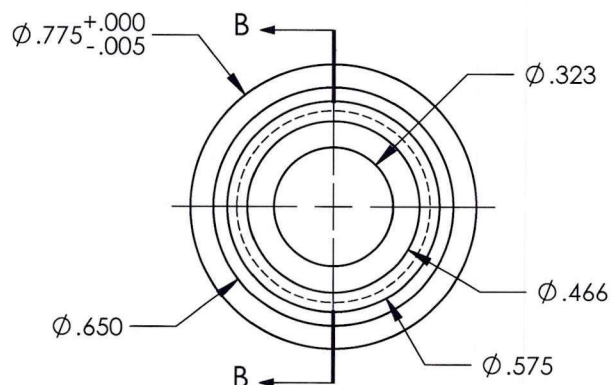
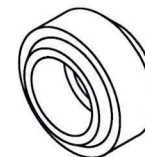
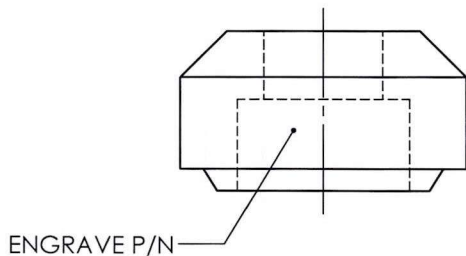
SECTION A-A

(-1)
CUP

DART AEROSPACE	
TITLE LANDING GEAR BEARING TOOL	
DWG NO. RBT18632-1	REV 4
MAT'L 6061	DRAWN BY: PERRITT
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± 5° .X ± .1	APPROVED <i>D Weil</i> HEAT TREAT FINISH BLACK ANODIZE
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	SPEC MIL-A-8625F, TYPE II, CLASS II USED ON MODEL MD500
SCALE 1:1	DATE 9/28/2006 SHEET 2 OF 9

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2		-3 CH'D O.D. FROM $\phi .780 +.000-.003$.	11/21/06		
2A		-3 CH'D STAMP TO ENGRAVE.	1/20/10	RJC	RW



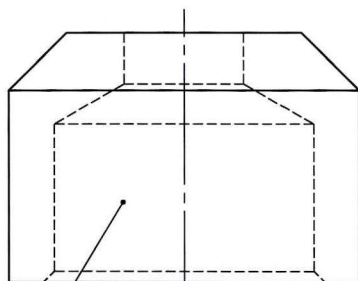
SECTION B-B

(-3)
PRESS

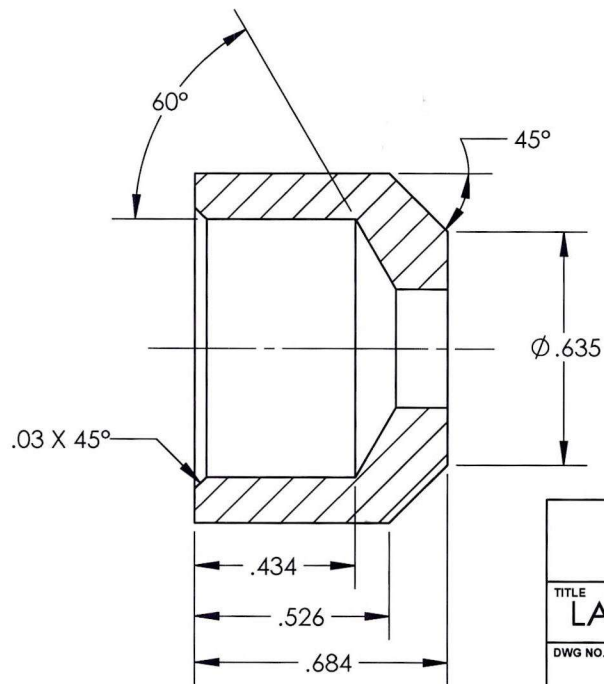
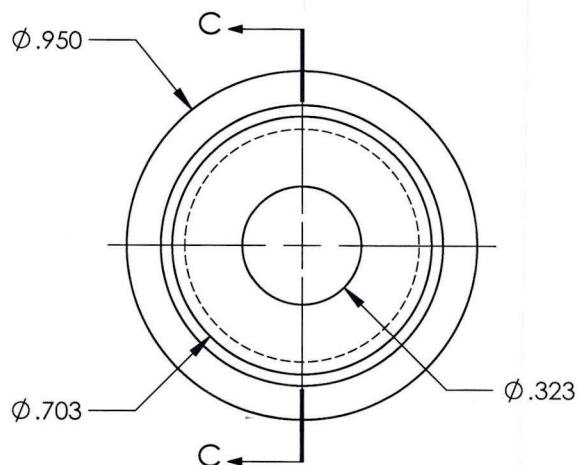
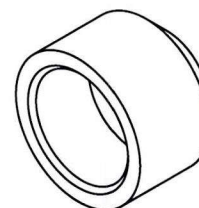
DART AEROSPACE	
TITLE LANDING GEAR BEARING TOOL	
DWG NO. RBT18632-3	REV 4
MATL 6061	DRAWN BY: PERRITT
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± .5° .X ± .1	APPROVED <i>D Weil</i> HEAT TREAT FINISH BLACK ANODIZE
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	SPEC MIL-A-8625F, TYPE II, CLASS II
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	USED ON MODEL MD500
SCALE 2:1	DATE 9/28/2006 SHEET 3 OF 9

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2A		-5 CH'D STAMP TO ENGRAVE.	1/20/10	RJC	RW



ENGRAVE P/N



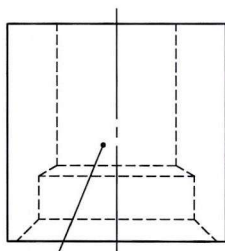
SECTION C-C

(-5)
CUP

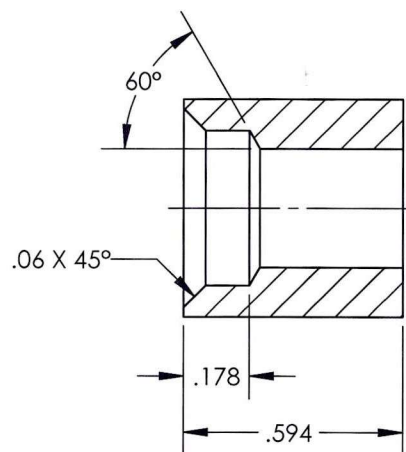
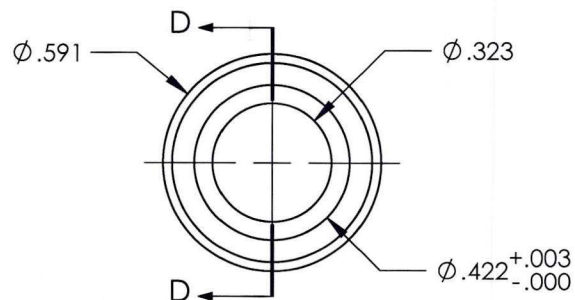
DART AEROSPACE	
TITLE LANDING GEAR BEARING TOOL	
DWG NO. RBT18632-5	REV 4
MAT'L 6061	DRAWN BY: PERRITT
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVED <i>D Weil</i>
.XXX ± .005	HEAT TREAT
.XX ± .01	FINISH
.X ± .1	BLACK ANODIZE
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	SPEC MIL-A-8625F, TYPE II, CLASS II
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	USED ON MODEL
	MD500
SCALE 2:1	DATE 9/28/2006
	SHEET 4 OF 9

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
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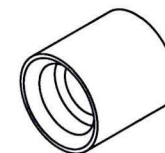


ENGRAVE P/N



SECTION D-D

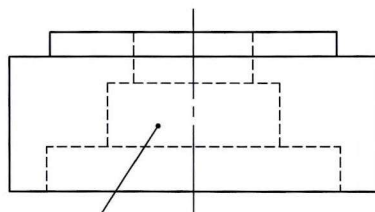
(-7)
PRESS



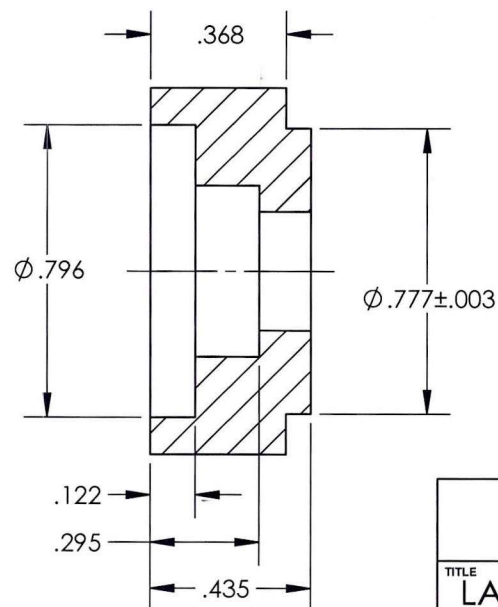
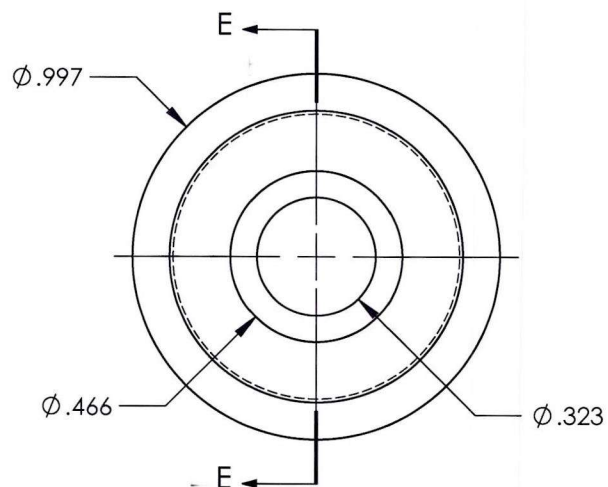
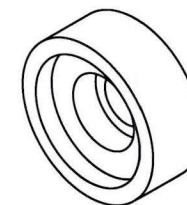
DART AEROSPACE	
TITLE LANDING GEAR BEARING TOOL	
DWG NO. RBT18632-7	REV 4
MATL 6061	DRAWN BY: PERRITT
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± .5° .X ± .1	APPROVED <i>D Weil</i> HEAT TREAT FINISH BLACK ANODIZE
1. BREAK ALL SHARP EDGES .015 X 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	SPEC MIL-A-8625F, TYPE II, CLASS II USED ON MODEL MD500
SCALE 2:1	DATE 9/28/2006 SHEET 5 OF 9

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2A		-9 CH'D STAMP TO ENGRAVE.	1/20/10	RJC	RW



ENGRAVE P/N



SECTION E-E

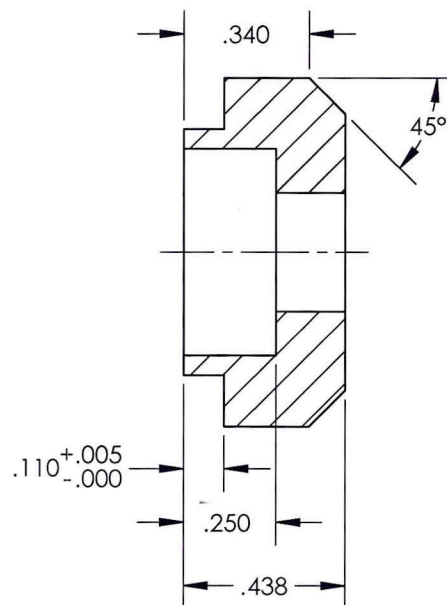
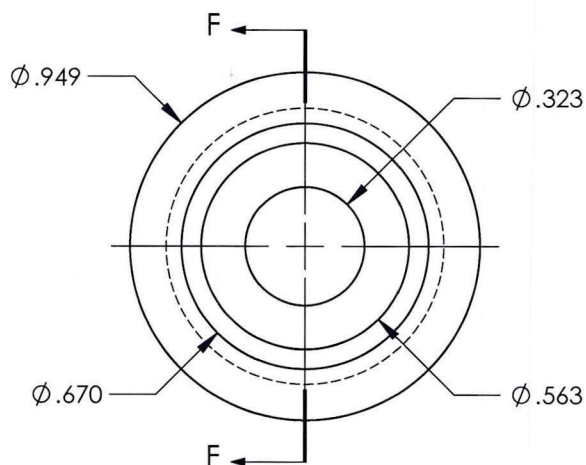
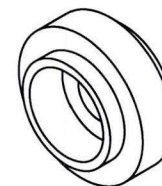
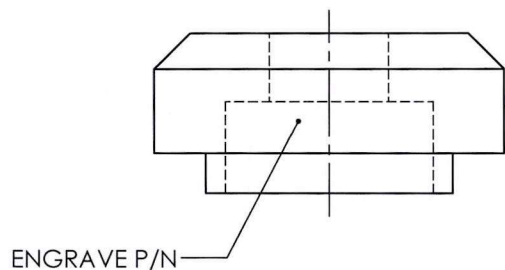
(-9)

SEAT

DART AEROSPACE	
TITLE LANDING GEAR BEARING TOOL	
DWG NO. RBT18632-9	REV 4
MATL 6061	DRAWN BY: PERRITT
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± 5° .X ± .1	APPROVED <i>D Weil</i> HEAT TREAT FINISH BLACK ANODIZE
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	SPEC MIL-A-8625F, TYPE II, CLASS II USED ON MODEL MD500
SCALE 2:1	DATE 9/28/2006 SHEET 6 OF 9

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2		-11 FROM .100 +.003-.000.	11/21/06		
2A		-11 CH'D STAMP TO ENGRAVE.	1/20/10	RJC	RW



SECTION F-F

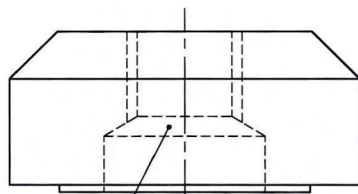
(-11)

PRESS

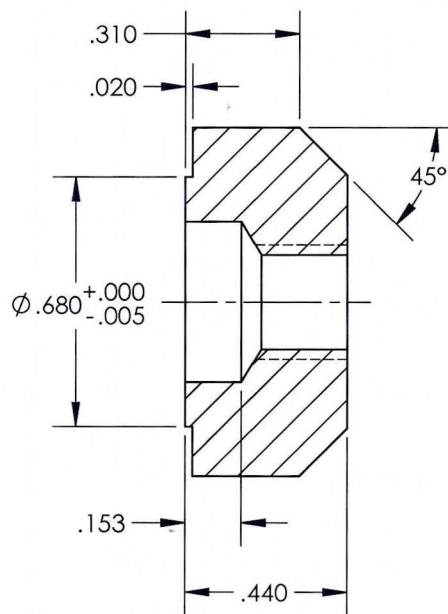
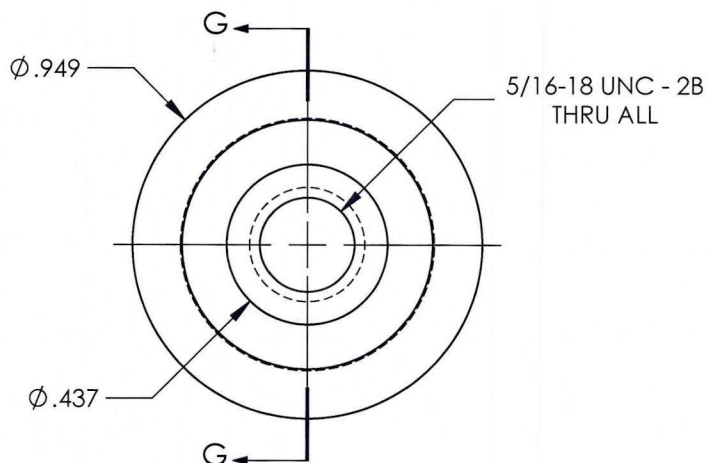
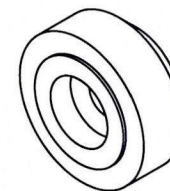
DART AEROSPACE	
TITLE LANDING GEAR BEARING TOOL	
DWG NO. RBT18632-11	REV 4
MAT'L 6061	DRAWN BY: PERRITT
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVED <i>D Weil</i>
.XXX ± .005 FRACTIONS ± 1/8	HEAT TREAT
.XX ± .01 ANGLES ± 5°	FINISH BLACK ANODIZE
.X ± .1	SPEC MIL-A-8625F, TYPE II, CLASS II
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	USED ON MODEL
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	MD500
SCALE 2:1	DATE 9/28/2006
SHEET 7 OF 9	

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2A		-13 CH'D STAMP TO ENGRAVE.	1/20/10	RJC	RW



ENGRAVE P/N



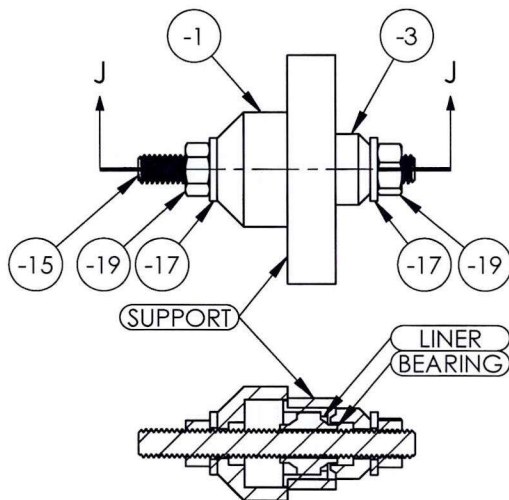
SECTION G-G

(-13)

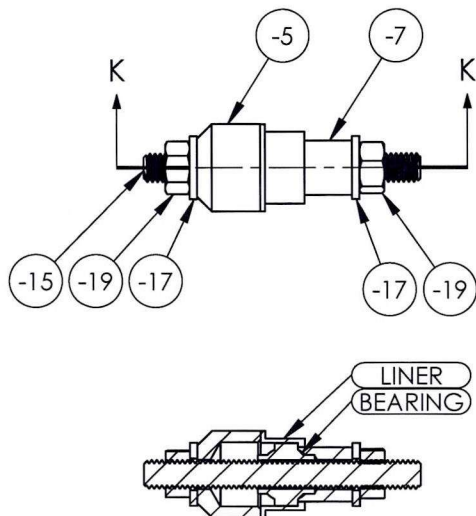
PRESS

DART AEROSPACE	
TITLE LANDING GEAR BEARING TOOL	
DWG NO. RBT18632-13	REV 4
MAT'L 6061	DRAWN BY: PERRITT
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVED <i>D Weil</i>
.XXX ± .005	HEAT TREAT
.XX ± .01	FINISH
.X ± .1	BLACK ANODIZE
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	SPEC MIL-A-8625F, TYPE II, CLASS II
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	USED ON MODEL MD500
SCALE 2:1	DATE 9/28/2006
SHEET 8 OF 9	

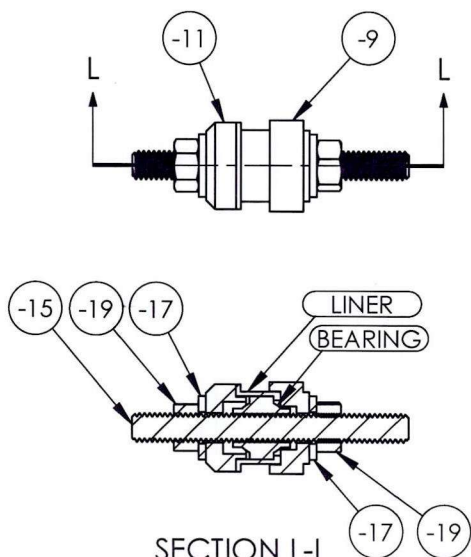
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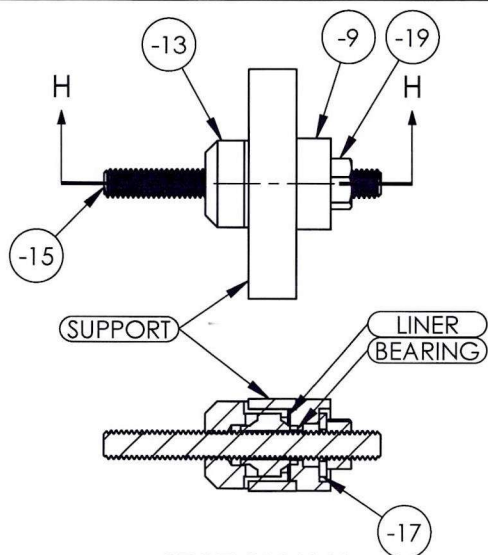
SECTION J-J
1. REMOVE LINER AND
BRG. FROM AIRCRAFT



SECTION K-K
2. REMOVE BRG.
FROM LINER



SECTION L-L
3. PRESS BRG.
INTO LINER



SECTION H-H
4. INSERT BRG. AND
LINER INTO AIRCRAFT

DART
AEROSPACE

190 S. Danebo Ave., Eugene, OR. 97402
1-800-556-4166
e-mail: sales@dartaero.com
dartaerospace.com

TITLE
LANDING GEAR BEARING TOOL

DWG NO. RBT18632	REV 4	CUSTOMER 1 OF 1
SCALE 1:2	DATE 4/3/2015	SHEET 9 OF 9



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO040860**

Supplier: ARR002-VU
Arrow Tech Machine Works
29751 E. Enid Road,
Unit C
Eugene, OR 97402 USA
Phone: 541-780-6938
Fax: 458-215-4938

PO No: PO040860
PO Date: 8/27/18
Due Date: 10/22/18
Purchase Order
Revision:
Revision Date:
Ship-To Contact: Phone:

Revision

Ship To:

Pymt Terms: Net 30
Freight Terms:
Special Comments:

Items													
Line Item	Job	Part	Supplier Part No	Item No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	182576	RBEB670-P0001-101P			Positioning Guage	Firmed	-	10/22/18	1 Ea	0 Ea	1 Ea	\$1,255.90/Ea	\$1,255.90
						1 X	OCT 22 2018						
2	182578	RBT18632p			landing gear brng install/rmvl tool	Firmed	-	10/22/18	1 pcs	0 pcs	1 pcs	\$713.21/pcs	\$713.21
						1 X	OCT 22 2018						
3	182579	RBH9807p			Main Transmission Drain Tool	Firmed	-	10/2/18	1 pcs	0 pcs	1 pcs	\$495.42/pcs	\$495.42
						1 X	OCT 03 2018						
4	182580	RBA9829-AP			Main Rotor Mast Nut Wrench (RB Design)	Firmed	-	10/22/18	1 Ea	0 Ea	1 Ea	\$613.00/Ea	\$613.00
						1 X	OCT 22 2018						
5	182581	RBH9807p			Main Transmission Drain Tool	Firmed	-	10/22/18	1 pcs	0 pcs	1 pcs	\$495.42/pcs	\$495.42
						1 X	OCT 22 2018						
6	182583	RBE1X36-176-779-2P			Driver	Firmed	-	10/22/18	1 Ea	0 Ea	1 Ea	\$1,363.09/Ea	\$1,363.09
						1 X	OCT 22 2018						
7	182584	RBT18526P			Main Rotor Blade Bolt Extractor	Firmed	-	10/22/18	1 Ea	0 Ea	1 Ea	\$813.00/Ea	\$813.00
						1 X	OCT 22 2018						
Grand Total:												\$5,749.04	

DAS
38
9-89



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO040860

Order Notes

Procurement Quality Clauses

A005 RIGHT OF ENTRY

A008 FIRST ARTICLE INSPECTION (FAI) BY SELLER, (DOCUMENTATION SENT TO DART AEROSPACE)

A012 CHEMICAL AND PHYSICAL TEST REPORTS

A016 PERSONNEL QUALIFICATION

A017 RAW MATERIAL IDENTIFICATION (AS APPLICABLE)

A026 CERTIFICATION OF MATERIAL CONFORMANCE

A041 QUALITY MANAGEMENT SYSTEM

A042 DART NOTIFICATION BY SUPPLIER

A043 RETENTION OF QUALITY DOCUMENT

A048 COUNTERFEIT PARTS AVOIDANCE, DETECTION, MITIGATION AND DISPOSITION PROGRAM

A049 SUPPLIER AWARENESS

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

A handwritten signature in black ink, appearing to be "RL" or similar, located to the right of the terms and conditions text.

Plex 10/3/18 1:18 PM dart.Lussier.Patrick



**PHGE Machineworks dba
Arrowtech Machineworks**
29751 E Enid Rd. Unit C
Eugene, Oregon 97402
Phone: (541) 780-6938
Fax: (458) 215-4938

Packing Slip

NO. 290

Date: 10/19/2018
PO Ref: 040860 & 040903
Ship via: Fedex Priority

Bill To:
Dart Aerospace
1270 Aberdeen St. Hawkesbury, ON
CANADA K6A 1K7

Ship To:
Dart Aerospace
1271 Aberdeen St. Hawkesbury, ON
CANADA K6A 1K8

Qty	Item	Part No.
1 ✓	POSITIONING GUAGE ✓	✓ RBEB670-P0001-101 ✓
1 ✓	LANDING GEAR BEARING TOOL ✓	✓ RBT18632 REV 4 ✓
1 ✓	MAIN ROTOR MAST NUT WRENCH ✓	✓ RBA9829-A REV 4 ✓
1 ✓	MAIN TRANSMISSION DRAIN TOOL ✓	✓ RBH9807 REV 1A ✓
1 ✓	SOCKET WRENCH ✓	✓ RBE1X36-176-779 REV 2 ✓
1 ✓	M/R BLADE BOLT EXTRACTOR ✓	✓ RBT18526 REV 1 ✓
1 ✓	SEAL REMOVE & INSTALL KIT ✓	✓ HT-400-SK REV 1B ✓

Received by: _____

Packaged by: ANP

Checked by: Q.S.

Thank You



ARROW TECH MACHINE WORKS

Certificate of Conformance

Your Purchase Order No:040860

Dated: 10/19/2018

Our Order / Job No:040860-2AWT

Order Qty:1

Part Name:LANDING GEAR BEARING TOOL

Part Number: RBT18632

Lot Size: N/A

Ship Date: 10/19/2018

We certify that these parts shipped to you are of domestic or international manufacture and conform to all requirements of the Purchase Order. These parts have been manufactured and inspected in accordance with all required specifications, instructions and drawings. Any applicable specifications are listed below:

Drawing Number: RBT18632

Rev: 4

Material Size and Type: -1,-3,-5,-7,-9,-11,-13/6061 ALUM.

Material Specifications: ALUM.: ASTM B221

Heat Treatment: N/A

Plating/Finish: BLACK ANODIZE: MIL-A-8625F, TYPE II, CLASS II

Mercury Contamination: The material used to process this order has not come in contact with mercury or mercury bearing instruments.

Date: 10/19/18

Signed: 

PHGE Machine Works LLC dba Arrow Tech Machine Works
29751 E. Enid Rd. Unit C Eugene, Oregon 97402
Main: (541) 780-6938 | Fax: (458) 215-4938
www.atechmachineworks.com

DAL
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